

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 21

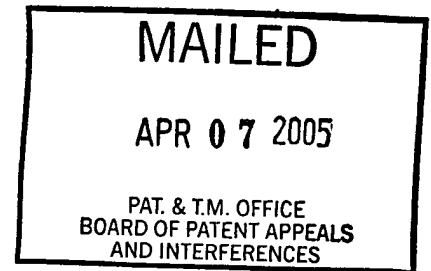
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALLEN KING

Appeal No. 2005-0575
Application No. 09/539,459

ON BRIEF



Before OWENS, RUGGIERO, and DIXON, *Administrative Patent Judges*.
OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from the final rejection of claims 54, 56-62 and 64-68, and refusal to allow claim 69 as amended after final rejection. These are all of the pending claims.

THE INVENTION

The appellant claims a method and system for communicating to a host system, such as a host computer, a numerically variable characteristic of a subsystem such as a redundant array of independent/inexpensive disks. Claim 54, which claims the method, is illustrative:

54. A method for communicating to a host system a numerically variable characteristic of a subsystem, said method comprising the steps of:

said subsystem receiving a request from said host system to monitor said numerically variable characteristic of said subsystem and report to said host system a value of said characteristic or an amount of change of said characteristic when a minimum numerical amount of said change occurs, said request specifying said minimum numerical amount of said change; and

in response to the receiving step, said subsystem monitoring said characteristic, and

if and approximately when said minimum numerical amount of said change subsequently occurs in said characteristic, said subsystem reporting a value of said characteristic or an amount of change of said characteristic to said host system,

if no change occurs or less than said minimum numerical amount of change occurs before a predetermined time-out, said subsystem reporting to said host system a value of said characteristic or an amount of change of said characteristic upon said predetermined time-out.

THE REFERENCES

Lui et al. (Lui)	5,337,413	Aug. 9, 1994
Day	6,311,274	Oct. 30, 2001
		(filed Dec. 15, 1997)
Nakashima et al.	6,470,385	Oct. 22, 2002
(Nakashima)		(filed Aug. 20, 1998)

THE REJECTION

Claims 54, 56-62 and 64-69 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lui in view of Day and Nakashima.

OPINION

We reverse the aforementioned rejection.

Lui discloses an apparatus and method for monitoring the environment of remote components attached by a standard interface bus to a central processor (col. 1, lines 9-12). Environmental status information, such as an abnormal ambient temperature within a storage device enclosure, is detected by an environment monitoring unit and is communicated back to a host processor (col. 5, lines 6-8 and 27-41).

Day discloses an alert handling system and method wherein an alert originator monitors the temperature of a memory device and sends an alert occurrence message to an alert handler when the temperature exceeds a threshold temperature by at least a specified amount (col. 2, lines 33-36; col. 3, lines 5-32). The alert message can indicate the temperature and the number of degrees by which it exceeds the threshold (col. 4, line 50 - col. 5, line 5).

Nakashima discloses a network monitoring system having a status message transmission unit that sends a status message to monitoring stations via a broadcast unit when a monitoring controller observes a status change in a monitored controller (col. 4, lines 12-20 and 41-44).

Each of the appellant's independent claims requires that if and approximately when a minimum numerical amount of change in a characteristic of a subsystem occurs, the subsystem reports to a host system a value of the characteristic or an amount of change in the characteristic.

The examiner argues (answer, page 8):

Minimum numeric amount of change is disclosed in Day (column 2, lines 34-37 and column 3, lines 17-20 and 29-32) where an alert is given when the temp exceeds the threshold value by 10. Day states, "the alert condition is met when the exceeds_threshold value is greater than 10. The alert action is to send an email message witht eh value fo [sic, with the value of] the TEMP to a given address... The variable exceeds_threshold establishes EXCEED as the amount by which the temperature threshold must at least be exceeded in order to trigger an alert action". The amount of change is the difference between two values. Thus 10 (the difference between the threshold temp and the alert temp) is an amount of change and in the case of the claimed invention is the minimum numerical amount of change that causes a report.

The examiner's argument that the 10° difference between the threshold temperature and the alert temperature is the minimum amount of change that causes a report is incorrect. A report can be triggered if the temperature increases from any temperature below the alert temperature, including temperatures above the threshold temperature, to any temperature at or above the alert temperature. Day's system does not disclose how much the

temperature rises between its initial value and the value it reaches that is at or above the alert temperature.

Each of the appellant's independent claims requires that if no change or less than the minimum amount of change occurs before a predetermined time-out, the subsystem reports to the host system a value of the characteristic or an amount of change of the characteristic upon the predetermined time-out.

The examiner points out (answer, page 9) that 1) Lui discloses that one of the three methods that initiates environmental monitoring is recurrent polling by the host processor of a host adaptor to permit communication of abnormal environment conditions from an environment monitoring unit (col. 6, lines 32-36), and 2) the appellant states that "[t]he SAF-TE [Small Computer System Interface Accessed Fault-Tolerant Enclosure] is a polling based interface, and while the SAF-TE Interface Specification does not place any formal restriction on polling frequency, the specification states that it expects most implementors to poll the SEP [SAF-TE Processor] once every two to ten seconds" (specification, page 3, lines 3-5). The examiner argues that "the polling frequency or interval of every two to ten seconds is seen as a predetermined time-out by the examiner because at that moment regardless of the change in status of the

monitored variable its value is reported to the host device" (answer, page 9). During patent prosecution, claims are to be given their broadest reasonable interpretation consistent with the specification, as the claim language would have been read by one of ordinary skill in the art in view of the specification and prior art. See *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983). The appellant's specification (page 21, lines 27-31) and the appellant's independent claims indicate that the time-out is the end of a period in which no change or less than the minimum amount of change in a characteristic has taken place. This meaning of "time-out" is consistent with the dictionary definition of that term.¹ Thus, the examiner's argument that at a time-out the value of a monitored variable is reported to a host device regardless of the

¹ See *The IEEE Standard Dictionary of Electrical and Electronic Terms* 1116 (6th ed. 1996) ("**time-out (1)(A)** A condition that occurs when a predetermined amount of time elapses without the occurrence of an expected event. For example, the condition that causes termination of an on-line process if no user input is received within a specified period of time. **(B)** To experience the condition in definition (A). (C/Std100) 610.10-1994, 610.12-1990 **(2)** A time-out occurs when a protective timer completes its assigned time without the expected event occurring. Time-outs prevent the system from waiting indefinitely in case of error or failure.")

change in status of the monitored variable is incorrect. The value is reported at the time-out not regardless of a change in status but, rather, only if the status has not changed. If a change of status takes place the value is reported before the time-out.

The examiner argues (answer, pages 9-10):

Nakashima et al. discloses [under "Description of the Related Art", col. 1, lines 42-47 and 51-54],
["]...the network monitoring station collects status information from ATM network devices by transmitting query messages at regular intervals to request them to send back their local administrative information, including device configuration, functional status, and statistics... this [sic, This] system, however, repeats such data collection at predetermined intervals, regardless of the presence of actual status changes in each individual ATM network device." The regular intervals of request are equivalent to set timeout periods because both set a time at which a status response must be sent to the host and both respond to the request with the current data regardless of a change in status.

As discussed above, the ends of regular intervals at which current data is provided regardless of a change in status are not time-outs.

We therefore conclude that the examiner has not carried the burden of establishing a *prima facie* case of obviousness of the appellant's claimed invention.

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DECISION

The rejection of claims 54, 56-62 and 64-69 under 35 U.S.C. § 103 over Lui in view of Day and Nakashima is reversed.

REVERSED

Terry J. Owens
TERRY J. OWENS
Administrative Patent Judge

Joseph F. Ruggiero
JOSEPH F. RUGGIERO
Administrative Patent Judge

BOARD OF PATENT
APPEALS AND
INTERFERENCES


JOSEPH L. DIXON
Administrative Patent Judge

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